

# Pervaporation

**System Objectives:** Azeotrope breaking and dewatering of liquid solutions with pervaporation using hydrophilic membranes.

## Operating Limits:

Source	Minimum	Maximum
Flow Rate	1 L/min	10 L/min
Vacuum	0.3 psi / 20 mbar	14.5 psi / 1000 mbar
Temperature	50 °C	140°C
Pressure	ambient	100 psi / 7 bar

## Chemicals and Hazards:

Name	Hazard	Mitigation	PPE
Feed Solution (Ethanol)	Flammable / Solvent Nature	Training Vented Enclosure System Purge	Safety Glasses
Feed Solution (general)	Leakage / Membrane Rupture	System Automation Emergency Shut Off	Safety Glasses
Heat sources / Heated Fluids	Burns	Signage Insulation Enclosure	Safety Glasses / Insulated Gloves